

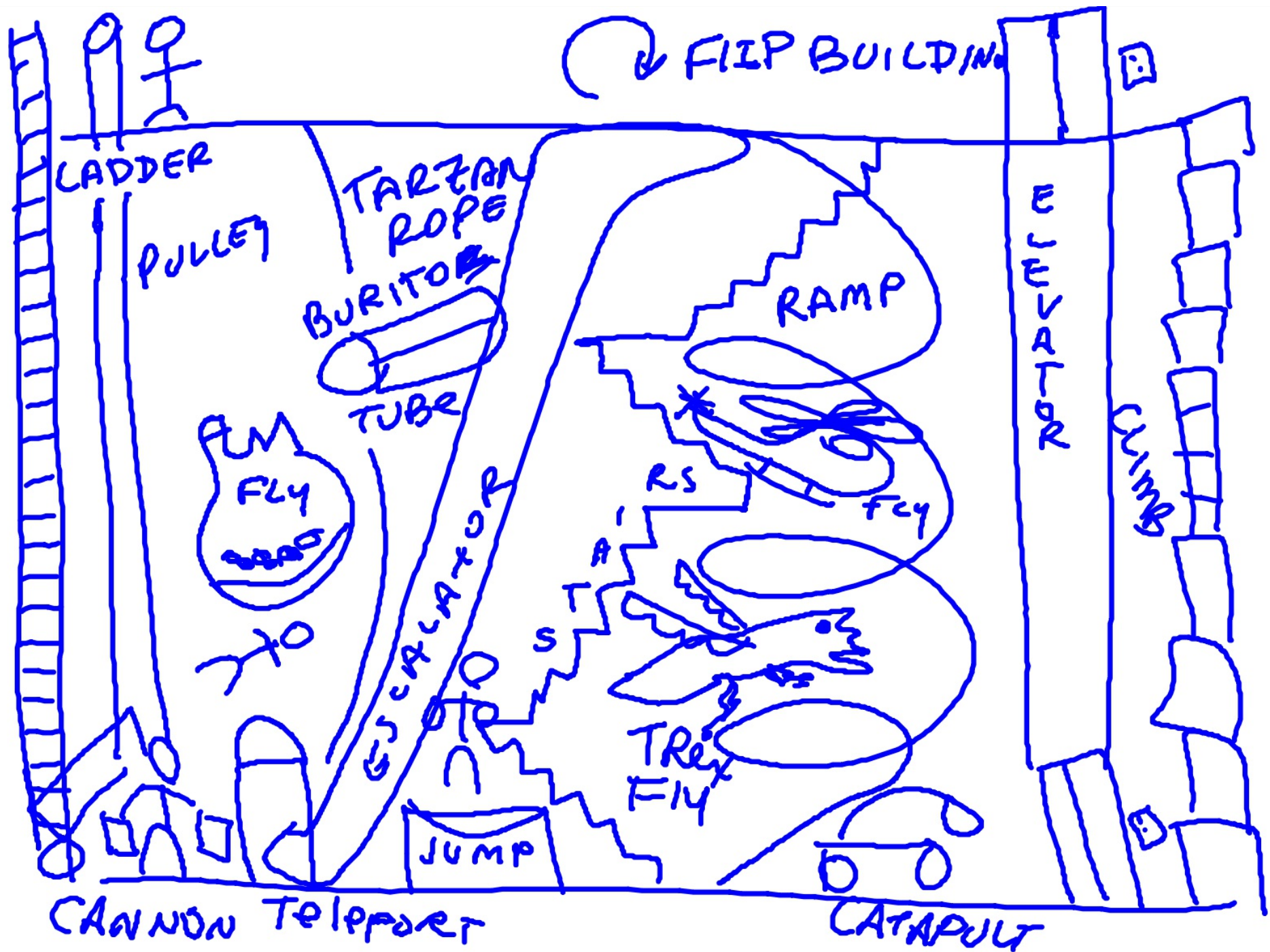
WORK is measured in Joules

The FORCE + Distance need to be parallel to each other to be counted as WORK.

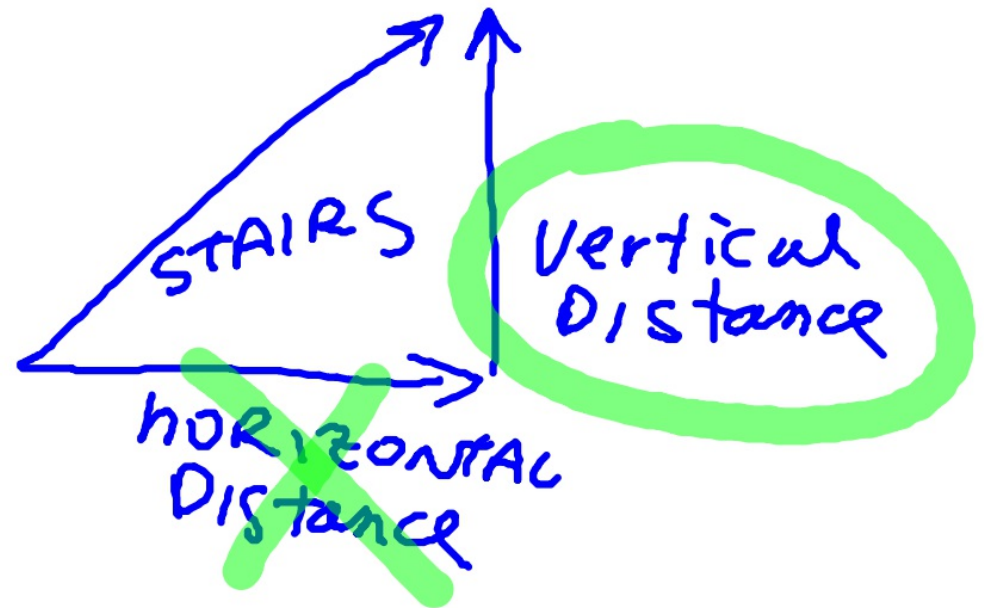
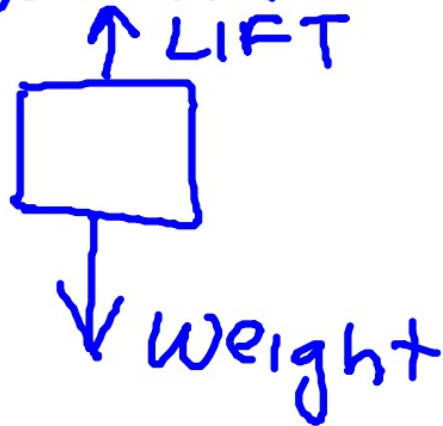
$$WORK = F_{||} d$$

WORK IS NOT A vector...

WORK Does NOT Depend on the Path taken.



ALL OF THE METHODS
DID THE SAME AMOUNT OF
WORK ON THE PACKAGES



$$d_{\text{vert}} = 5\text{m} \uparrow$$

$$\text{mass} = 3\text{kg}$$

$$\text{Weight} = mg = (3\text{kg})(9.8\text{m/s}^2)$$

$$\text{Weight} = 29\text{N} \downarrow$$

$$\text{LIFT} = 29\text{N} \uparrow = \text{FORCE}$$

$$\text{WORK} = F \cdot d$$

$$\text{WORK} = (29\text{N})(5\text{m})$$

$$\text{WORK} = 145\text{J}$$